

REMARKS

The acknowledgment of the claim for foreign priority under 35 U.S.C. §119 is noted with appreciation. With regard to receipt of the priority documents, Applicant submitted the certified copies of the priority documents with the paper entitled "Submission of Priority Documents" on July 14, 2004. Attached for the Examiner's reference are copies of (1) the "Submission of Priority Document"; (2) the certification cover pages of Japanese Applications 2003-064222 and 2003-064223; and (3) the date-stamped postcard evidencing receipt of these documents by the U.S. Patent and Trademark Office on July 14, 2004. Based on the above, it appears that the certified copies were inadvertently separated from the "Submission of Priority Document" at the U.S. Patent and Trademark Office. Therefore, please make of record the U.S. Patent and Trademark Office's receipt of the certified copies of the priority documents on July 14, 2004.

The specification has been amended in several locations to correct spelling and grammatical errors. In addition, the abstract of the disclosure has been rewritten to contain a single paragraph as required by the Examiner. No new matter has been introduced.

Claim 5 has been canceled, and the substance of claim 5 has been incorporated into claim 4. Claims 1-4 and 6-7 are currently pending in the application. Claim 1 has been amended to emphasize the location of the stopper in relation to the link bearing. Support for this amendment can be found throughout the specification, particularly at pages 11-12, and in Figures 9 and 10 of the drawings.

Claim 1 has been rejected as being anticipated by U.S. Patent 4,771,146 to Suzuki et al. Claims 2-7 have been rejected as being unpatentable over Suzuki in view of U.S. Patent 5,746,308 to Lin. Each of these rejections is traversed in view of the amendments above and the remarks below.

The present invention discloses a keyboard apparatus for a computer that is designed to improve the assembling efficiency of the keyboard, as well as reduce the number of parts and thickness of the apparatus. In one embodiment, the apparatus consists of a frame, a link bearing provided on the frame having an elongated hole, a link that is slidably engaged with the

elongated hole of the link bearing at a first end, and a stopper that, when in contact with a second end of the link, positions the link at an assembling position in the elongated hole of the link bearing (see claim 1, as amended, of the present invention). Preferably, in the practice of the invention, the link is obtained by bend molding a thin, cross-sectionally circumferential rod into the shape of gate, which reduces the cost compared to injection molded links (see page 8, lines 14 et seq., and claim 4, as amended). The stopper, which is separate and apart from the link bearing, has an inclined face which allows the second end portion of the link, which is not connected to the link bearing, to be lowered along the stopper's inclined surface and aligned automatically with the b points, as shown in Figure 9 of the present invention (see also pages 11-12 in the specification of the present invention). Unlike the prior art, the stopper makes it unnecessary to carry out an operation for regulating the positions of the links, thereby reducing the number of parts and reducing the time needed to assemble the apparatus (see pages 3-4 and 12 of the specification). Furthermore, neither Suzuki nor Lin, either individually or in combination, teach the use of a stopper separate and apart from a link bearing to align the end portion of a link with the key top.

Suzuki discloses a structure for mounting a key top on a keyboard via lever support means on the back of a key top (see abstract of Suzuki). In rejecting claim 1 of the present invention, the Examiner has suggested that Suzuki also teaches a stopper portion on the frame that aligns the link at the assembling position (see Office Action at pages 3-4). However, it is respectfully submitted that Suzuki does not suggest, disclose or recognize the importance of having a stopper on the frame separate and apart from a link bearing in order to automatically align a link with the key top. Particularly, Figure 2 of Suzuki shows a link bearing having to be fastened through holes (29) to the base (28); it does not show a stopper on the surface of the base (28) for interacting with the second end of the link. Rather, Figure 2 of Suzuki shows the second end of the link (25) to be positioned adjacent to the lever support means (22c). In other words, Suzuki does not use a stopper device on the frame to automatically align a link to the key top. The Examiner asserts that the slanted surface (30a) of the link bearing in Suzuki serves the same aligning function as the stopper (17a) in the present invention. However, the slanted surface

(30a) in Suzuki prevents the link (25, 26) from sliding completely through the level sliding member (30) (see column 3, lines 30-50, and Figures 1 and 2, in Suzuki). In any event, the surface (30a) is not on the substrate surface (28) and does not contact a second end of the link (as is required in the claim). That is, the present invention teaches the use of a stopper (17a) provided on the frame (11), separate and apart from the link bearing (15) that serves to automatically align the end portion of the link (13) to the key top (18) (see pages 11-12, and Figures 9 and 10, in the specification). Suzuki clearly does not teach nor suggest the use of a separate stopper device on the frame of a keyboard apparatus to automatically align a link to the key top.

In rejecting claim 4 of the present invention, the Examiner has also suggested that Suzuki, in combination with Lin, teaches the formation of a metal link bearing on a metal frame (see Office Action at page 4). However, it is respectfully submitted that no combination of Suzuki and Lin would suggest the formation of a link bearing by subjecting the metal plate to a sheet metal process. Particularly, the frame in Suzuki is not formed by a metal plate, and the link bearing is not formed by a sheet metal process of the frame. Rather, the frame is substrate (28), and the link bearing is affixed to the link bearing using a connection that fits through bores (29) (see Figure 2 in Suzuki). While it appears that Lin teaches the use of a metal base (185), it does not have a link that is formed by a bend molding operation (links 17 and 19 are injection molded as can be seen in Figures 1 and 3), as is required in claim 4 as amended. Thus, no combination of Suzuki and Lin would produce the link bearing formed by a sheet metal process and the bend molded link.

For the aforementioned reasons, it is respectfully submitted that one of ordinary skill in the art would not find it obvious to create the present invention set forth in claims 1-4 and 6-7 by consulting any combination of the cited references.

In view of the foregoing, it is respectfully requested that the application be reconsidered, that claims 1-4 and 6-7 be allowed, and that the application be passed to issue.

Should the Examiner find the application to be other than in condition for allowance, the Examiner is requested to contact the undersigned at the local telephone number listed below to

Serial No.: 10/796,119

T. Sato

Page 12

discuss any other changes deemed necessary in a telephonic or personal interview.

A provisional petition is hereby made for any extension of time necessary for the continued pendency during the life of this application. Please charge any fees for such provisional petition and any deficiencies in fees and credit any overpayment of fees to Attorney's Deposit Account No. 50-2041.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Michael E. Whitham', is written over the typed name.

Michael E. Whitham

Reg. No. 32,635

Whitham, Curtis & Christofferson, P. C.

11491 Sunset Hills Road, Suite 340

Reston, Virginia 20190

Customer Number: **30743**

(703) 787-9400

Serial No.: 10/796,119

T. Sato

Page 8

In the drawings:

Please approve the labeling of Figures 11 and 12 as “RELATED ART” as shown in red on the marked-up copy and as shown on the replacement sheet of those Figures attached to this paper.

In addition, please approve the deletion of a graphical error of Figure 7 as shown in red on the marked-up copy and as shown on the replacement sheet of Figure 7 attached to this paper.

The diagram shows a power supply circuit. A transformer (11) has a primary winding connected to an AC source. The secondary winding is connected to a series of components: a capacitor (15), a fuse (16), and a relay (17). The relay (17) is shown in two states: a normal state and a state where it is crossed out with an 'X', indicating a failure or a specific operating condition. The relay (17) is connected to a capacitor (15) and a fuse (16). The circuit also includes a capacitor (14) connected to the secondary winding of the transformer (11).

FIG. 11
RELATED ART



